

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	47	(interpos\$3 or interconnect\$3 or redistribut\$3) with strain with thermal near cycling	USPAT	OR	ON	2007/02/26 18:48
L2	0	(interpos\$3 or interconnect\$3 or redistribut\$3) with strain with thermal near cycling with ("C" or "F" or celsius or fahrenheit)	USPAT	OR	ON	2007/02/26 19:00
L3	0	(interpos\$3 or interconnect\$3 or redistribut\$3) with strain with thermal near cycling with ("C" or "F" or celsius or fahrenheit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 19:01
L4	0	(interpos\$3 or interconnect\$3 or redistribut\$3 or substrate or borad or carrier) with strain with thermal near cycling with ("C" or "F" or celsius or fahrenheit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 19:01
L5	0	(interpos\$3 or interconnect\$3 or redistribut\$3 or substrate or broad or carrier) with strain with thermal near cycling with ("C" or "F" or celsius or fahrenheit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 19:01
L6	6	(interpos\$3 or interconnect\$3 or redistribut\$3 or substrate or broad or carrier) same strain with thermal near cycling with ("C" or "F" or celsius or fahrenheit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 19:02
L7	37	(interpos\$3 or interconnect\$3 or redistribut\$3 or substrate or broad or carrier) same (strain or stress) with thermal near cycling with ("C" or "F" or celsius or fahrenheit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 20:23
L8	6	257/e23.062	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 20:24

## EAST Search History

L9	43	257/e23.069	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 20:25
L10	20	257/e23.07	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 20:27
L11	499	257/729	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 20:37
L12	5774	257/778	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 20:41
L13	2966	257/786	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/02/26 20:41
S1	18	"5731047".pn. or "5836063".pn. or "5841075".pn. or "5868950".pn. or "5888630".pn. or "5888631".pn. or "5900312".pn. or "5983974".pn. or "6011697".pn. or "6018196".pn. or "6021564".pn. or "6103992".pn. or "6127250".pn. or "6143401".pn. or "6183592".pn. or "6203891".pn. or "6248959".pn. or "20040012938". pn.	US-PGPUB; USPAT	OR	OFF	2005/06/21 03:52
S2	1	"3953566".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:25
S3	1	"4482516".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:26
S4	1	"4591659".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:26

## EAST Search History

S5	1	"4591659".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:26
S6	1	"4654248".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:26
S7	1	"4654248".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:27
S8	1	"4705762".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:27
S9	1	"4890194".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:27
S10	1	"4890194".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:28
S11	1	"4943844".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:28
S12	1	"4985296".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:28
S13	1	"5103293".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:29
S14	1	"5339217".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:29
S15	1	"5455385".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:29
S16	1	"5506756".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:29
S17	1	"5103293".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:31
S18	1	"5339217".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:31
S19	1	"5455385".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:32
S20	1	"5506756".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:32
S21	1	"5532513".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:32
S22	1	"5545473".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:32
S23	1	"5545473".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:33
S24	1	"5572405".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:33
S25	6	"6046910".pn. or "6210862".pn. or "6570245".pn. or "20010030057". pn. or "20020007964".pn. or "20020135063".pn.	US-PGPUB; USPAT	OR	OFF	2004/11/09 19:38

## EAST Search History

S26	69208	(semiconductor or chip or die or IC) and (interposer or interconnect or redistribution)	US-PGPUB; USPAT	OR	OFF	2004/11/09 19:39
S27	49710	(semiconductor or chip or die or IC) and (interposer or interconnect or redistribution)	USPAT	OR	OFF	2004/11/09 20:01
S28	7330	S27 and (ball or bump)	USPAT	OR	OFF	2004/11/09 19:41
S29	30	S28 and (interposer or interconnect or redistribution) with (metal or protect\$3) with bottom near surface	USPAT	OR	OFF	2004/11/09 19:45
S30	72	S28 and (interposer or interconnect or redistribution) with (layer or film) with bottom near surface	USPAT	OR	OFF	2004/11/09 20:02
S31	1	"6285081".PN.	USPAT; USOCR	OR	OFF	2004/11/09 19:50
S32	154740	(semiconductor or chip or die or IC) and (interposer or interconnect or redistribution or carrier)	USPAT	OR	OFF	2004/11/09 21:29
S33	16949	(semiconductor or chip or die or IC) and (interposer or interconnect or redistribution or carrier) and (ball or bump)	USPAT	OR	OFF	2004/11/09 20:02
S34	72	S33 and (interposer or interconnect or redistribution) with (layer or film) with bottom near surface	USPAT	OR	OFF	2004/11/09 20:02
S35	138	S33 and (interposer or interconnect or redistribution or carrier) with (layer or film) with bottom near surface	USPAT	OR	OFF	2004/11/09 20:14
S36	6149	S33 and "257"/\$.ccls.	USPAT	OR	OFF	2004/11/09 20:15
S37	4247	S33 and (flip near chip or "C4")	USPAT	OR	OFF	2004/11/09 20:15
S38	3001	S37 and "257"/\$.ccls.	USPAT	OR	OFF	2004/11/09 20:49
S39	292	S37 and 257/666	USPAT	OR	OFF	2004/11/09 20:16
S40	11863	S33 and (heatsink or heat neat (sink or stiffener or spreader or transfer) or ground near (plane or film or layer))	USPAT	OR	OFF	2004/11/09 20:19
S41	3868	S33 and (heatsink or heat neat (sink or stiffener or spreader or transfer) or ground near (plane or film or layer)) with surface	USPAT	OR	OFF	2004/11/09 20:19
S42	340	S33 and (heatsink or heat neat (sink or stiffener or spreader or transfer) or ground near (plane or film or layer)) with bottom near surface	USPAT	OR	OFF	2004/11/09 20:19
S43	6149	S33 and "257"/\$.ccls.	USPAT	OR	OFF	2004/11/09 20:42

## EAST Search History

S44	90	S33 and prevent\$3 near warp\$3	USPAT	OR	OFF	2004/11/09 20:43
S45	1257	S37 and (257/778 or 257/786 or 257/798)	USPAT	OR	OFF	2004/11/09 20:50
S46	2	"3290564".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:19
S47	1	"4654248".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:20
S48	1	"4893172".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:20
S49	1	"4942076".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:20
S50	1	"5086337".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:20
S51	1	"5216278".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:21
S52	1	"5325265".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:21
S53	1	"5338967".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:21
S54	1	"5473119".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:21
S55	1	"5481136".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:22
S56	1	"5493153".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:22
S57	1	"5572070".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:22
S58	1	"5574630".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:22
S59	1	"5610442".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:22
S60	1	"5714803".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:22
S61	1	"5744863".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:23
S62	1	"5777386".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:23
S63	1	"5786635".PN.	USPAT; USOCR	OR	OFF	2004/11/09 21:23
S64	15	(semiconductor or chip or die or IC) and (interposer or interconnect or redistribution or carrier) with spacer with (ball or bump)	USPAT	OR	OFF	2004/11/09 21:31

## EAST Search History

S65	192	(semiconductor or chip or die or IC) and (interposer or interconnect or redistribution or carrier) with spac\$3 with (ball or bump)	USPAT	OR	OFF	2004/11/09 21:31
S66	94	(molding or encapsulat\$3) with bottom near surface with (adhesive or glue)	USPAT	OR	ON	2004/11/10 22:48
S67	492	(molding or encapsulat\$3) with attach\$3 with (board or "PCB")	USPAT	OR	ON	2004/11/10 22:49
S68	1	"5285352".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:22
S69	1	"5365400".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:22
S70	1	"5455462".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:23
S71	1	"5559369".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:23
S72	1	"5617294".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:23
S73	1	"5642261".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:24
S74	1	"5650593".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:24
S75	1	"5734555".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:24
S76	1	"5736785".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:25
S77	1	"5856911".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:25
S78	1	"5861670".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:25
S79	1	"5877552".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:26
S80	1	"5977626".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:26
S81	1	"6191360".PN.	USPAT; USOCR	OR	OFF	2004/11/10 23:26
S82	0	"6534723".pn. and polyimide with resist	USPAT	OR	OFF	2004/11/10 23:40
S83	1	"6534723".pn.	USPAT	OR	OFF	2004/11/10 23:40
S84	1	"6534723".pn. and polyimide and resist	USPAT	OR	OFF	2004/11/10 23:40
S85	13	174/255 and polyimide with solder near resist	USPAT	OR	OFF	2004/11/10 23:41

## EAST Search History

S86	658	(semiconductor or die or chip or IC) and (interposer or interconnect\$3 or redistribut\$3) with (spacer or pad) with (ball or bump)	USPAT	OR	OFF	2004/11/11 21:48
S87	1	"5229643".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:04
S88	1	"5554887".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:05
S89	1	"5903052".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:05
S90	1	"5920117".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:05
S91	1	"6184580".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:05
S92	1	"6219243".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:06
S93	1	"6259156".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:06
S94	1	"5136365".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:20
S95	1	"5187020".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:20
S96	1	"5375042".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:21
S97	1	"5412539".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:36
S98	1	"5509200".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:37
S99	1	"5518674".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:37
S10 0	1	"5805426".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:37
S10 1	1	"5893765".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:37
S10 2	1	"5905638".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:37
S10 3	1	"5910641".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:37
S10 4	1	"6090633".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:38
S10 5	1	"6326561".PN.	USPAT; USOCR	OR	OFF	2004/11/11 22:38
S10 6	298	solder near (resist or mask) with polyimide	USPAT	OR	OFF	2004/11/11 23:19

## EAST Search History

S107	23	S106 and interposer	USPAT	OR	OFF	2004/11/11 23:20
S108	4	S106 and interposer with solder near (resist or mask)	USPAT	OR	OFF	2004/11/11 23:20
S109	19	S106 and (interposer or interconnect\$3 or redistribut\$3) with solder near (resist or mask)	USPAT	OR	OFF	2004/11/11 23:29
S110	1	"6600224".pn. and polyimide and adhesive and dielectric	USPAT	OR	ON	2004/11/11 23:28
S111	87	(interposer or interconnect\$3 or redistribut\$3) with adhesive with polyimide	USPAT	OR	OFF	2004/11/12 01:11
S112	4267	257/778	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/12 01:43
S114	3660	257/712	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/12 13:51
S115	2181	257/713	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/12 15:29
S116	3456	257/737	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/12 16:31
S117	363	257/338	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/12 16:31
S118	48835	(interpos\$3 or interconnect\$3 or redistribut\$3) with (reference or ground)	US-PGPUB; USPAT	OR	ON	2005/06/21 03:53
S119	39061	(interpos\$3 or interconnect\$3 or redistribut\$3) with (reference or ground)	USPAT	OR	ON	2005/06/21 03:54



## EAST Search History

S12 0	1847	(interpos\$3 or interconnect\$3 or redistribut\$3) with (reference or ground) near plane	USPAT	OR	ON	2005/06/21 09:49
S12 1	506	(interpos\$3 or interconnect\$3 or redistribut\$3) with (reference or ground) near layer	USPAT	OR	ON	2005/06/21 12:10
S12 2	1	"5113315".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:53
S12 3	1	"5741729".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:53
S12 4	1	"5851337".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:53
S12 5	1	"5898217".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:54
S12 6	1	"5933324".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:54
S12 7	1	"5959356".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:54
S12 8	1	"6198635".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:54
S12 9	1	"6362525".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:55
S13 0	1	"6479758".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:55
S13 1	1	"6525942".PN.	USPAT; USOCR	OR	OFF	2005/06/21 10:55
S13 2	1	"20020139571".PN.	US-PGPUB	OR	OFF	2005/06/21 10:57
S13 3	0	(interpos\$3 or interconnect\$3 or redistribut\$3) with stress near relise	USPAT	OR	ON	2005/06/21 11:26
S13 4	178	(interpos\$3 or interconnect\$3 or redistribut\$3) with stress near relief	USPAT	OR	ON	2005/06/21 11:36
S13 5	0	(interpos\$3 or interconnect\$3 or redistribut\$3) with moint\$3 near structure	USPAT	OR	ON	2005/06/21 11:36
S13 6	1131	(interpos\$3 or interconnect\$3 or redistribut\$3) with mount\$3 near structure	USPAT	OR	ON	2005/06/21 11:59
S13 7	4795	(interpos\$3 or interconnect\$3 or redistribut\$3) with support\$3 near structure	USPAT	OR	ON	2005/06/21 12:00
S13 8	682	(interpos\$3 or interconnect\$3 or redistribut\$3) with support\$3 near structure with (back or rear or opposite)	USPAT	OR	ON	2005/06/21 12:04

## EAST Search History

S13 9	1	(interpos\$3 or interconnect\$3 or redistribut\$3) with (polyimide or insulat\$3 or dielectric) with plain with (back or rear or opposite)	USPAT	OR	ON	2005/06/21 12:05
S14 0	20	(interpos\$3 or interconnect\$3 or redistribut\$3) with (polyimide or insulat\$3 or dielectric) with plain	USPAT	OR	ON	2005/06/21 12:07
S14 1	31	(interpos\$3 or interconnect\$3 or redistribut\$3) same (polyimide or insulat\$3 or dielectric) with plain	USPAT	OR	ON	2005/06/21 12:07
S14 2	11	S141 not S140	USPAT	OR	ON	2005/06/21 12:07
S14 3	13925	(interpos\$3 or interconnect\$3 or redistribut\$3) with (spacer or stiffener or thermal near pad)	USPAT	OR	ON	2005/06/21 12:12
S14 4	13868	(interpos\$3 or interconnect\$3 or redistribut\$3) with (spacer or stiffener )	USPAT	OR	ON	2005/06/21 12:12
S14 5	0	(interpos\$3 or interconnect\$3 or redistribut\$3) with (spacer or stiffener or thermal near pad) and (spacer or stiffener or thermal near pad) with soder near mask	USPAT	OR	ON	2005/06/21 12:13
S14 6	3617	(interpos\$3 or interconnect\$3 or redistribut\$3) with (spacer or stiffener or thermal near pad) and (spacer or stiffener or thermal near pad) with (rear or back or opposite)	USPAT	OR	ON	2005/06/21 12:13
S14 7	13260	(interpos\$3 or interconnect\$3 or redistribut\$3) with spacer	USPAT	OR	ON	2005/06/21 12:13
S14 8	701	(interpos\$3 or interconnect\$3 or redistribut\$3) with ( stiffener or thermal near pad).	USPAT	OR	ON	2005/06/21 12:33
S14 9	3341	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with ( spacer)	USPAT	OR	ON	2005/06/21 12:34
S15 0	99	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with ( spacer) with pads	USPAT	OR	ON	2005/06/21 12:43
S15 1	1	"5136365".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:35
S15 2	1	"5187020".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:35
S15 3	1	"5375042".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:36

## EAST Search History

S15 4	1	"5412539".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:36
S15 5	1	"5509200".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:36
S15 6	1	"5518674".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:36
S15 7	1	"5805426".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:36
S15 8	1	"5893765".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:37
S15 9	1	"5905638".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:37
S16 0	1	"5910641".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:37
S16 1	1	"6090633".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:37
S16 2	1	"6326561".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:37
S16 3	1	"5893765".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:38
S16 4	1	"5905638".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:38
S16 5	1	"5910641".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:38
S16 6	1	"6090633".PN.	USPAT; USOCR	OR	OFF	2005/06/21 12:38
S16 7	469	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with ( adhesive) with pads	USPAT	OR	ON	2005/06/21 12:43
S16 8	64	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with solid near (plain or layer)	USPAT	OR	ON	2005/06/21 13:12
S16 9	10	"6525942"	USPAT	OR	ON	2005/06/21 12:46
S17 0	352	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with (ground or thermal) near (plain or layer)	USPAT	OR	ON	2005/06/21 13:07
S17 1	0	"6312266".pn. with (cover\$3 or coat\$3 or attach\$3)	USPAT	OR	ON	2005/06/21 13:07
S17 2	32990	"6312266".pn. spacer with (cover\$3 or coat\$3 or attach\$3)	USPAT	OR	ON	2005/06/21 13:08

## EAST Search History

S17 3	0	"6312266".pn. and spacer with (cover\$3 or coat\$3 or attach\$3)	USPAT	OR	ON	2005/06/21 13:08
S17 4	0	"6312266".pn. and spacer with (cover\$3) with (polyimide or epoxy)	USPAT	OR	ON	2005/06/21 13:09
S17 5	91	spacer with (cover\$3) with (polyimide or epoxy)	USPAT	OR	ON	2005/06/21 13:09
S17 6	0	"6312266".pn. and spacer with underfill	USPAT	OR	ON	2005/06/21 13:09
S17 7	1	"6312266".pn. and spacer with epoxy	USPAT	OR	ON	2005/06/21 13:10
S17 8	1	"6312266".pn. and spacer with adhesive	USPAT	OR	ON	2005/06/21 13:10
S17 9	0	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with spacer with under near fill and under near fill with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 13:12
S18 0	4	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with spacer with (under near fill or underfill) and (under near fill or underfill) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 13:13
S18 1	5	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with spacer with (under near fill or underfill or attaching) and (under near fill or underfill or attaching) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 13:14
S18 2	27	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with spacer and (under near fill or underfill or attaching) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 13:16
S18 3	36	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) same spacer and (under near fill or underfill or attaching) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 13:27
S18 4	9	S183 not S182	USPAT	OR	ON	2005/06/21 13:16

## EAST Search History

S18 5	30	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) and spacer and (under near fill or underfill or attaching) with (epoxy or polyimide) and (under near fill or underfill or attaching) with board	USPAT	OR	ON	2005/06/21 13:22
S18 6	0	(semiconductor or die or dice or chip or IC) and (carrier or module) with spacer and (under near fill or underfill ) with (epoxy or polyimide) and (under near fill or underfill ) with board	USPAT	OR	ON	2005/06/21 13:23
S18 7	1	(semiconductor or die or dice or chip or IC) and (carrier or module) with stiffener and (under near fill or underfill ) with (epoxy or polyimide) and (under near fill or underfill ) with board	USPAT	OR	ON	2005/06/21 13:24
S18 8	41	(semiconductor or die or dice or chip or IC) and (carrier or module) with spacer with board and (mold\$3 or encapsulat\$3 or resin ) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 13:24
S18 9	28	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with spacer with board and (mold\$3 or encapsulat\$3 or resin ) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 17:03
S19 0	1	"6114757".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:34
S19 1	1	"6175517".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:34
S19 2	29	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with ground near plane with (protective or cover\$)	USPAT	OR	ON	2005/06/21 15:13
S19 3	32	"5901041"	USPAT	OR	OFF	2005/06/21 14:49
S19 4	1	"6696748".pn.	USPAT	OR	OFF	2005/06/21 15:03
S19 5	1	"4887148".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:50
S19 6	1	"5627407".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:50
S19 7	1	"6258624".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:50

## EAST Search History

S19 8	1	"6291899".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:50
S19 9	1	"5432114".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:57
S20 0	1	"5477082".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:57
S20 1	1	"5834848".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:57
S20 2	1	"5834848".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:59
S20 3	1	"5895965".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:59
S20 4	1	"5900675".PN.	USPAT; USOCR	OR	OFF	2005/06/21 14:59
S20 5	1	"5926379".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:00
S20 6	1	"5926708".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:00
S20 7	1	"5953599".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:00
S20 8	1	"5990418".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:00
S20 9	1	"6025650".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:00
S21 0	1	"6078506".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:01
S21 1	1	"6294831".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:02
S21 2	1	"6316829".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:03
S21 3	1	"6384487".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:03
S21 4	40	"5834848"	USPAT	OR	OFF	2005/06/21 15:13
S21 5	1	"5473512".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:09
S21 6	1	"5640051".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:09
S21 7	1	"5729440".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:09
S21 8	1	"5731630".PN.	USPAT; USOCR	OR	OFF	2005/06/21 15:09

## EAST Search History

S21 9	4881	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with (buffer or stabiliz\$3)	USPAT	OR	ON	2005/06/21 15:13
S22 0	39	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with (buffer or stabiliz\$3) near (plate or plane or layer) with (underfill or adhes\$3 or resin or epoxy or polyimide)	USPAT	OR	ON	2005/06/21 15:16
S22 1	209	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with (buffer or stabiliz\$3) and (buffer or stabiliz\$3) with (underfill or adhes\$3 or resin or epoxy or polyimide)	USPAT	OR	ON	2005/06/21 15:25
S22 2	219411	"5834848" and (interpos\$3 or interconnect\$3 or redistribut\$3) and (buffer or stabiliz\$3) and (buffer or stabiliz\$3) with (underfill or adhes\$3) and (adhesive or underfill) (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 15:26
S22 3	1	"5834848" and (interpos\$3 or interconnect\$3 or redistribut\$3) and (buffer or stabiliz\$3) and (buffer or stabiliz\$3) with (underfill or adhes\$3) and (adhesive or underfill) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 15:26
S22 4	3	"5834848" and (interpos\$3 or interconnect\$3 or redistribut\$3) and (buffer or stabiliz\$3) and (buffer or stabiliz\$3) with (underfill or adhes\$3)	USPAT	OR	ON	2005/06/21 15:27
S22 5	3	"5834848" and (interpos\$3 or interconnect\$3 or redistribut\$3) and (buffer or stabiliz\$3) and ( adhes\$3) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 16:06
S22 6	6999	(semiconductor or die or chip) and flux with material	USPAT	OR	ON	2005/06/21 16:07
S22 7	958	(semiconductor or die or chip) and flux with (dielectric or insulating)	USPAT	OR	ON	2005/06/21 16:07
S22 8	94	(semiconductor or die or chip) with flux with (dielectric or insulating)	USPAT	OR	ON	2005/06/21 16:08
S22 9	6	(semiconductor or die or chip) with flux with contain\$3 with (dielectric or insulating)	USPAT	OR	ON	2005/06/21 16:09

## EAST Search History

S23 0	5	(semiconductor or die or chip) with flux with made with (dielectric or insulating)	USPAT	OR	ON	2005/06/21 16:10
S23 1	11	(semiconductor or die or chip) with flux with made with (resin or epoxy)	USPAT	OR	ON	2005/06/21 16:12
S23 2	1	(semiconductor or die or chip) with flux near material with (resin or epoxy)	USPAT	OR	ON	2005/06/21 16:13
S23 3	0	(semiconductor or die or chip) with liquid near flux near material with (resin or epoxy)	USPAT	OR	ON	2005/06/21 16:13
S23 4	0	(semiconductor or die or chip) with liquid near flux with (resin or epoxy)	USPAT	OR	ON	2005/06/21 16:14
S23 5	11	liquid near flux with (resin or epoxy)	USPAT	OR	ON	2005/06/21 16:14
S23 6	22	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with underfill with board and (underfill ) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 17:40
S23 7	186	(semiconductor or die or dice or chip or IC) and (interpos\$3 or interconnect\$3 or redistribut\$3) with adhesive with board and (adhesive ) with (epoxy or polyimide)	USPAT	OR	ON	2005/06/21 18:22
S23 8	407	257/729	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/21 18:28
S23 9	4481	257/778	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/06/21 18:29
S24 0	449	257/729	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/27 20:25
S24 1	5051	257/778	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/27 20:34



## EAST Search History

S24 2	2645	257/786	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/27 21:20
S24 3	2	"6291899".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/27 20:36
S24 4	3	257/e21.504	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/27 21:21
S24 5	53	("5473512"   "5640051"   "5729440"   "5731630").PN. OR ("5834848"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 18:45
S24 6	23	("3869787"   "5410185"   "5677575"   "5682297"   "5834848"   "5892289"   "5936304"   "5962925"   "5969426"   "5973930"   "6094155"   "6139978"   "6174751"   "6177724"   "6225433").PN. OR ("6303998").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 19:12
S24 7	14	("5834848"   "5959362").PN. OR ("6081038").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 19:14
S24 8	45	("4771330"   "5045921"   "5222014"   "5239198"   "5477082"   "5646828"   "5834848").PN. OR ("5901041").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 19:10
S24 9	24	("3777221"   "5375042"   "5477933"   "5535101").PN. OR ("5973930"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 19:16
S25 0	20	("4642163"   "4867839"   "5011066"   "5489750"   "5973406"   "6081038"   "6142609"   "6222277"   "6225702").PN. OR ("6346679"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 19:20
S25 1	159	("4744007"   "4868712"   "5155302"   "5354955").PN. OR ("5477933"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 19:20

## EAST Search History

S25 2	39	("4489364"   "4549200"   "4652065"   "4706165"   "4803595"   "4922377"   "4926241"   "5036163"   "5060116"   "5066831"   "5243140"   "5294754").PN. OR ("5354955").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 19:25
S25 3	32	(flip near chip) same interposer same board and solder near (resist\$3 or mask\$3)	USPAT	OR	ON	2006/09/30 19:57
S25 4	35	("3868724"   "4710798"   "5019673"   "5159535"   "5346861"   "5352926"   "5384955"   "5491303"   "5504035"   "5585162"   "5602419"   "5615477"   "5616958"   "5636996"   "5637920"   "5674785"   "5686764"   "5699613"   "5708296"   "5714800"   "5719749"   "5729894"   "5777386"   "5790378"   "5798567"   "5866949"   "5909010"   "5925930"   "5962925"   "6075710"   "6098282"   "6192581"   "6281448").PN. OR ("6507118"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/30 19:54
S25 5	33	(flip near chip) same interposer same (board or PCB orPWB) and solder near (resist\$3 or mask\$3)	USPAT	OR	ON	2006/09/30 21:15
S25 6	33	((flip or "C4") near chip) same interposer same (board or PCB orPWB) and solder near (resist\$3 or mask\$3)	USPAT	OR	ON	2006/09/30 19:59
S25 7	92	(flip or "C4") with (chip or die or semiconductor or IC) and (semiconductor or die or chip or IC) same interposer same (board or PCB orPWB) and solder near (resist\$3 or mask\$3)	USPAT	OR	ON	2006/09/30 20:00
S25 8	59	S257 not S256	USPAT	OR	ON	2006/09/30 20:08
S25 9	470	257/729	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/30 20:36

## EAST Search History

S26 0	319	(semiconductor or die or chip or IC) and solder near mask with polyimide	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/30 20:33
S26 1	14	(semiconductor or die or chip or IC) and interposer same solder near mask with polyimide	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/30 20:34
S26 2	12	(semiconductor or die or chip or IC) and interconnect\$3 same solder near mask with polyimide	USPAT	OR	ON	2006/09/30 20:40
S26 3	5476	257/778	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/30 22:02
S26 4	2	"6020637".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/30 20:40
S26 5	0	"6020637".pn. and solder near mask with polyimide	USPAT	OR	ON	2006/09/30 20:40
S26 6	1	"6020637".pn. and solder near mask and polyimide	USPAT	OR	ON	2006/09/30 20:40
S26 7	28	S257 and copper with pad	USPAT	OR	ON	2006/09/30 21:15
S26 8	4	257/E23.062	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/30 22:03

## EAST Search History

S26 9	25	257/E23.069	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/30 22:04
S27 0	12	257/E23.07	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/30 22:04